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EXAMINER
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TOMASZEWSKI, MICHAEL

ART UNIT	PAPER NUMBER
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3626

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Please find below and/or attached an Office communication concerning this application or proceeding.



**DETAILED ACTION**

***Notice To Applicant***

1. This communication is in response to the application filed on 4/5/2006. Claims 17-23 are newly added and pending. Claims 1-16 have been cancelled.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(A) Regarding claim 1, the phrase "and/or" renders the claim indefinite because it is unclear whether or not the recited limitations are included.

Art Unit: 3626

(B) Regarding claim 19, it is unclear whether or not this claim is included within Applicant's system because of the alternative language used in claim 1 (i.e., the phrase "and/or").

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shile (6,669,482; hereinafter Shile), in view of Nishikawa et al. (6,058,322; hereinafter Nishikawa), in view of Buckley et al. (6,551,107; hereinafter Buckley), as applied in the previous Office Action, and further in view of Wong et al. (6,260,021; hereinafter Wong), and further in view of De Bonet (5,819,288; hereinafter De Bonet). Further reasons are given below.

(A) As per claim 1, Shile discloses a radiological workstation for providing in-service monitoring and training, quality assurance and quality control for screening of medical images comprising:

- (1) a computer having (Shile: abstract; col. 1, lines 15-19; col. 5, lines 59-60);
  - (i) a user interface (Shile: abstract; col. 8, lines 39-41);
  - (ii) a workflow memory in which a workflow in the form of a case stack can be stored (Shile: col. 5, lines 57-64);
  - (iii) an image selection module coupled to the workflow memory containing a program, a retrieval program module for retrieving image data from a first database (Shile: abstract; col. 8, lines 16-51; col. 5, lines 57-64);
  - (iv) a session preparation module coupled to the image selection module for specifying data from the first database to be screened, for initializing the case stack, and for selecting and inputting data from the second database into the case stack including specifying an absolute number or percentage of known cases of different categories and/or subcategories to be input (Shile: col. 5, lines 2-7 and 53-67; col. 6, lines 53-67; col. 7, lines 1-54);
  - (v) a display module coupled to the image selection module for displaying a current image on a monitor (Shile: abstract; col. 8, lines 34-36);
  - (vi) a third database stored in memory a first portion of which contains a user action database for tracing user actions that are input via the user interface, for recording rules, and a second portion of which

contains a diagnosis database for recording diagnoses and/or annotations being input by a radiologist via the user interface

(Shile: abstract; col. 8, lines 59-61; col. 9, lines 23-25);

- (2) a first database comprised of a first image memory archive of cases to be reviewed, each case composed of a preselected plurality of images classifiable into preselected categories and subcategories, each case having a unique case identifier, said first database coupled to said retrieval program module of said image selection module of the computer (Shile: col. 5, lines 53-67; col. 6, lines 1-5 and 53-67; col. 7, lines 1-54; col. 9, lines 23-28);
- (3) a database comprised of known cases coupled to the infiltration program module of the computer, said known cases composed of a preselected plurality of images of known proven positive and/or known proven normal cases, within said plurality of preselected categories and subcategories, each said case having a unique case identifier (Shile: col. 5, lines 2-7 and 53-67; col. 6, lines 1-5 and 53-67; col. 7, lines 1-54; col. 9, lines 23-28);
- (4) a monitor for displaying images coupled to the display module of the computer for displaying a current image (Shile: abstract; col. 8, lines 33-35); and
- (5) user interface of the computer, which when actuated instructs the user interface to step to the next image or case (Shile: abstract; col. 8, lines 31-41); and

- (6) wherein a user via the session preparation module can preselect the operation of the radiological workstation for one of:
  - (i) training a radiologist using only known cases from the second database (Shile: col. 5, lines 2-7 and 53-67; col. 6, lines 53-67; col. 7, lines 1-54; col. 9, lines 23-28); and
  - (ii) screening of real cases from the first database with a preselected number of known cases from the second database interspersed therein for monitoring and controlling a radiologist's attention (Shile: abstract; col. 5, line 50-col. 6, line 5; col. 6, line 53-col. 7, line 55).

Shile, however, fails to expressly disclose a radiological workstation for providing in-service monitoring and training, quality assurance and quality control for screening of medical images comprising:

- (7) a computer having:
  - (i) a user interface in which a user profile can be stored;
  - (ii) a pointer for pointing to the current case being reviewed;
  - (iii) an infiltration program module for retrieving image data from a second database;
  - (vi) a user action database for generating a user action report in accordance with the recorded rules;
- (8) a second database comprised of a second image memory archive; and

- (9) a keypad coupled to the user interface of the computer, said keypad including a "next step key".

Nevertheless, these features are old and well known in the art, as evidenced by Wong, De Bonet, Nishikawa, Buckley and knowledge available to one skilled in the art. In particular, these references disclose a radiological workstation for providing in-service monitoring and training, quality assurance and quality control for screening of medical images comprising:

- (7) a computer having:
  - (i) a user interface in which a user profile can be stored (Wong: abstract; col. 10, lines 18-27);
  - (ii) a pointer for pointing to the current case being reviewed (De Bonet: col. 22, lines 39-41);
  - (iii) an infiltration program module for retrieving image data from a second database (Nishikawa: abstract; col. 22, lines 16-18);
  - (vi) a user action database for generating a user action report in accordance with the recorded rules (Buckley: col. 4, lines 30-33; col. 14, lines 63-67; col. 15, lines 1-10);
- (8) a second database comprised of a second image memory archive (Nishikawa: abstract; col. 22, lines 16-18); and



- (9) a keypad coupled to the user interface of the computer, said keypad including a "next step key." Examiner notes that techniques for navigating through a series of items (e.g., document pages, images, etc.) commonly include clickable GUI "next" buttons, keyboard keys (e.g., "Page Up/Down" keys, cursor keys, etc.), and various peripheral devices (e.g., keypads, mouse buttons, and the like). As such, Examiner respectfully submits that these features (i.e., keypad and a "next step key") are old and well known in the art.).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of Wong with the combined teachings of Shile, De Bonet, Nishikawa, Buckley, and knowledge available to one skilled in the art, with the motivation of providing added function and performance (Wong: abstract).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of De Bonet with the combined teachings of Shile, Wong, Nishikawa, Buckley, and knowledge available to one skilled in the art, with the motivation of refining the image retrieval process (De Bonet: col. 7, lines 8-10).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of Nishikawa with the combined teachings of Shile, De Bonet, Wong, Buckley, and knowledge available to one skilled in the art, with the motivation of providing an automated method and system for displaying medical images (Nishikawa: col. 4, lines 41-46).

Art Unit: 3626

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of Buckley with the combined teachings of Shile, De Bonet, Nishikawa, Wong, and knowledge available to one skilled in the art, with the motivation of providing an interactive educational environment (Buckley: col. 3, lines 1-2).

One of ordinary skill would have found it obvious at the time of the invention to combine a keypad and the technique of using a "next step key" with the combined teachings of Shile, De Bonet, Nishikawa, Buckley, and Wong, with the motivation of providing a means for the user to navigate through items, such as images (Shile: col. 8, lines 39-41).

(B) As per claim 18, Shile discloses the computer system of claim 17 wherein the session preparation module enables specifying a category for images from the first database (Shile: col. 5, lines 2-7 and 53-67; col. 6, lines 53-67; col. 7, lines 1-54).

(C) As per claim 19, Shile discloses the computer system of claim 17 wherein an instantaneous feedback to the user is provided if the diagnosis of the known case is incorrect (Shile: col. 9, lines 50-51).

(D) As per claim 20, Shile discloses the computer system of claim 17 further comprising the step of selecting the case to be displayed based on a predefined fixed sequence (Shile: col. 5, lines 2-7, 53-54 and 66-67; col. 6, lines 53-67; col. 7, lines 1-54).

Art Unit: 3626

Examiner notes that Shile teaches the creation of various data sets of known cases. As such, the capability of creating (i.e., selecting) the case to be displayed based on a predefined fixed sequence is obvious.

(E) As per claim 21, Shile discloses the computer system of claim 17 wherein the session preparation module can specify an absolute number of percentage of known cases form the second database (Shile: col. 5, lines 2-7, 53-54 and 66-67; col. 6, lines 53-67; col. 7, lines 1-54).

Examiner notes that Shile teaches the creation of various data sets of known cases. As such, the capability of creating (i.e., specifying) a particular number of known cases to be selected during screening of cases is obvious.

(F) Claim 22 substantially repeats the same limitations as those give for claim 17-21 and is therefore, rejected for the same reasons given for those claims and incorporated herein.

(G) Claim 23 substantially repeats the same limitations as those give for claim 17 and is therefore, rejected for the same reasons given for those claims and incorporated herein.

***Response to Arguments***

6. Applicant's arguments with respect to claims 17-23 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's arguments filed 4/5/2006 have been fully considered but they are not persuasive. Applicant's arguments will be addressed herein below in the order in which they appear in the response filed 4/5/2006.

(A) On page 8 of the 4/5/2006 response, Applicant argues that the cited prior art does not disclose the claimed limitations nor teach or suggest the specifically claimed limitations for a workstation as recited in claim 17.

In response, Examiner respectfully submits that the combination of prior art applied does indeed disclose Applicant's limitations recited in claim 17. See rejections above for more detail.

Similarly, on pages 9 and 10 of the 4/5/2006 response, Applicant argues that the cited prior art neither discloses the claimed limitations nor teach or suggest the specifically recited combination of method steps recited in claim 22 nor the computer program product stored on a computer usable medium of claim 23 for carrying out the method steps of claim 22.

In response, Examiner respectfully submits that the combination of prior art applied does indeed disclose the Applicant's limitations recited in claim 22 and 23. See rejections above for more detail.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The cited but not applied art teaches an image presentation apparatus (6,084,594).

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3626


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Tomaszewski whose telephone number is (571)272-8117. The examiner can normally be reached on M-F 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571)272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MT



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SUPERVISORY PATENT EXAMINER